

Application No. 10/587,256  
Reply to Office Action of December 1, 2008

IN THE DRAWINGS

The attached sheet of drawings includes changes to Figures 4B and 4C.

Attachment: Replacement Sheet

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-9 are presently pending in this case. Claims 1 and 7 are amended by the present amendment. As amended Claims 1 and 7 and new Claims 8 and 9 are supported by the original disclosure,<sup>1</sup> no new matter is added.

In the outstanding Official Action, Figure 4 was objected to; Claims 1 and 7 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as unpatentable over Claims 1, 5, 9, and 14 of U.S. Patent Application No. 12/037,714 in view of Ito et al. (U.S. Patent No. 5,825,155, hereinafter “Ito”); Claims 1 and 3-7 were rejected under 35 U.S.C. §103(a) as unpatentable over Ito in view of Barkat et al. (U.S. Patent No. 5,717,307, hereinafter “Barkat”); and Claim 2 was rejected under 35 U.S.C. §103(a) as unpatentable over Ito in view of Barkat and further in view of Tsuchiya (U.S. Patent Application Publication No. 20040212349).

With regard to the objection to Figure 4, Figure 4 is amended to separate the “power on” line for each of Figures 4A, 4B, and 4C, and Figures 4B and 4C are amended to include the label “Conventional Art.” Accordingly, the objection to Figure 4 is believed to be overcome.

With regard to the non-statutory double patenting rejection of Claims 1 and 7 over Claims 1, 5, 9, and 14 of U.S. Patent Application No. 12/037,714 in view of Ito, the rejection is respectfully traversed in light of the terminal disclaimer submitted herewith.

The filing of a terminal disclaimer to obviate a rejection based on non-statutory double patenting is not an admission of the propriety of the rejection. The "filing of a terminal disclaimer simply serves the statutory function of removing the rejection of double

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<sup>1</sup>See, e.g., paragraphs 37 and 85-90 of the publication of the application.

patenting, and raises neither a presumption nor estoppel on the merits of the rejection." *Quad Environmental Technologies Corp. v. Union Sanitary District*, 946 F.2d 870, 20 USPQ2d 1392 (Fed. Cir. 1991). Accordingly, Applicants filing of the attached disclaimer is provided for facilitating a timely resolution to prosecution only, and should not be interpreted as an admission as to the merits of the obviated rejection.

With regard to the rejection of Claim 1 as unpatentable over Ito in view of Barkat, that rejection is respectfully traversed.

Amended Claim 1 recites in part:

acquiring by serial communication by the microcomputer of the equipment body side information for battery residual quantity display from the microcomputer of the battery pack side loaded at the equipment body to perform battery residual quantity display on the basis of the acquired information when the power is turned on, ***the microcomputer acquiring the information for battery residual quantity display even if authentication processing is being performed by the microcomputer;***

acquiring by the microcomputer of the equipment body side, by serial communication, information for the authentication processing from the microcomputer of the battery pack side loaded at the equipment body to perform authentication processing to judge on the basis of the acquired information as to whether or not the battery pack connected to the equipment body is genuine battery pack; and

updating by the microcomputer of the equipment body Shipped side, after the authentication processing, the content of battery residual quantity display on the basis of information for battery residual quantity display, which is acquired by serial communication from the microcomputer of the battery pack side.

Ito describes a battery 623 and a battery charger 635.<sup>2</sup> The outstanding Office Action cited charger 635 of Ito as "an equipment body" and battery 623 of Ito as "a battery pack."<sup>3</sup> Step S42 of Ito includes displaying an "in-charge state" when the battery is connected, cited by the outstanding Office Action as the equipment body acquires information for battery

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<sup>2</sup>See Ito, Figures 66 and 67 and column 73, line 16 to column 74, line 54.

<sup>3</sup>See the outstanding Office Action at page 5.

residual quantity display. However, this is not a “battery residual quantity display,” but simply an indication that the battery is being charged. The particular battery residual quantity cannot be determined based on displaying an “in-charge state.”

Column 74, lines 23-26 of Ito states that step S45 includes the charge enable/disable detector 631 of the charger 625 reading data from the battery 623 when the communication is enabled. Then charge enable/disable detector 631 determines if the battery is chargeable in step S46, cited by the outstanding Office Action as “authentication processing.” However, as Ito describes that step S42 occurs once before steps S45 and S46, Ito cannot teach or suggest that step S42 occurs even if step S46 is also occurring. Therefore, Ito cannot teach or suggest “the microcomputer acquiring the information for battery residual quantity display even if authentication processing is being performed by the microcomputer.”

Therefore, it is respectfully submitted that Ito does not teach or suggest “acquiring by serial communication by the microcomputer of the equipment body side information for battery residual quantity display from the microcomputer of the battery pack side loaded at the equipment body to perform battery residual quantity display on the basis of the acquired information when the power is turned on, *the microcomputer acquiring the information for battery residual quantity display even if authentication processing is being performed by the microcomputer*,” and that Barkat does not cure this deficiency. Consequently, Claim 1 (and Claims 2-6 and 9 dependent therefrom) is patentable over Ito in view of Barkat.

Amended Claim 7 recites in part:

an equipment body within which a microcomputer having communication function is mounted; and  
a battery pack detachably loaded at the equipment body and adapted so that a microcomputer having communication function to perform serial communication to and from the microcomputer of the equipment body side is mounted, the battery pack serving to supply power to the equipment body,  
wherein when power is turned ON, the microcomputer of the equipment body side is configured to first acquire, by serial communication, information for battery residual quantity

display from the microcomputer of the battery pack side loaded at the equipment body to perform battery residual quantity display on the basis of the acquired information, *the microcomputer acquiring the information for battery residual quantity display even if authentication processing is being performed by the microcomputer*, the microcomputer of the equipment body side is configured to then acquire, by serial communication, information for the authentication processing from the microcomputer of the battery pack side loaded at the equipment body to judge on the basis of the acquired information as to whether or not the battery pack connected to the equipment body is genuine battery pack, and the microcomputer of the equipment body side is configured to update, after the authentication processing, the content of battery residual quantity display on the basis of the information for battery residual quantity display, which is acquired, by serial communication, from the microcomputer of the battery pack side.

As noted above, Ito describes that step S42 occurs once before steps S45 and S46, Ito cannot teach or suggest that step S42 occurs even if step S46 is also occurring. Therefore, Ito cannot teach or suggest “the microcomputer acquiring the information for battery residual quantity display even if authentication processing is being performed by the microcomputer.” Therefore, Claim 7 (and Claim 8 dependent therefrom) patentably defines over Ito in view of Barkat.

With regard to the rejection of Claim 2 as unpatentable over Ito in view of Barkat and further in view of Tsuchiya, it is noted that Claim 2 is dependent from Claim 1, and thus is believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Tsuchiya does not cure any of the above-noted deficiencies of Ito and Barkat. Accordingly, it is respectfully submitted that Claim 2 is patentable over Ito in view of Barkat and further in view of Tsuchiya.

Finally, new Claims 8 and 9 are supported at least by the specification at paragraph 37 of the publication. New Claims 8 and 9 are dependent on Claims 1 and 7, and thus are believed to be patentable for at least the reasons described above with respect to these claims.

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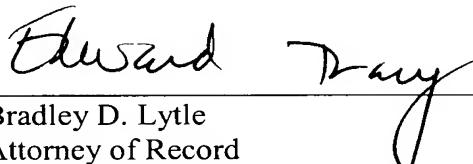
In addition, Claims 8 and 9 recite subject matter that further patentably defines over Ito in view of Barkat. Consequently, Claims 8 and 9 are also patentable over Ito in view of Barkat.

Accordingly, the pending claims are believed to be in condition for formal allowance.

An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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